

# Clinical Laboratory Update

September 2019

[www.milwaukee.gov/healthlab](http://www.milwaukee.gov/healthlab)

Phone: (414) 286-3526

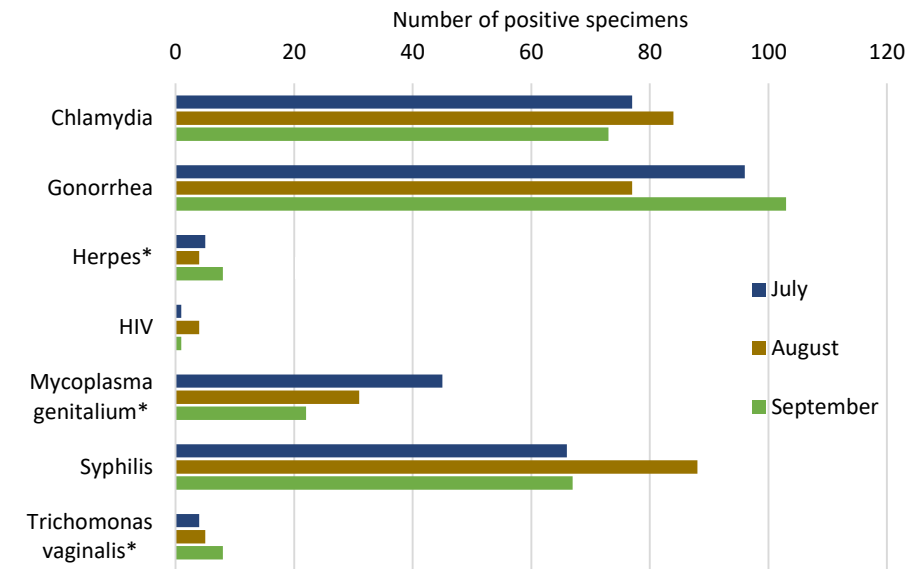
Fax: (414) 286-5098

## Sexually Transmitted Infections

## From the desk of the Public Health Laboratory Director

**Did you know?** MHD laboratory is one of the U.S. World Health Organization (WHO) Collaborating Laboratories and part of the National Respiratory and Enteric Virus Surveillance System (NREVSS) that conducts PHL surveillance testing year-round to understand what influenza viruses are circulating and the population being affected. A subset of specimens from clinical laboratories may be submitted to MHD or WSLH. All those data are compiled into weekly reports to CDC for total number of specimens tested, the number flu positives, influenza A & B virus types and subtypes. For more information on statewide influenza data, visit: <http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/influenza-activity/>

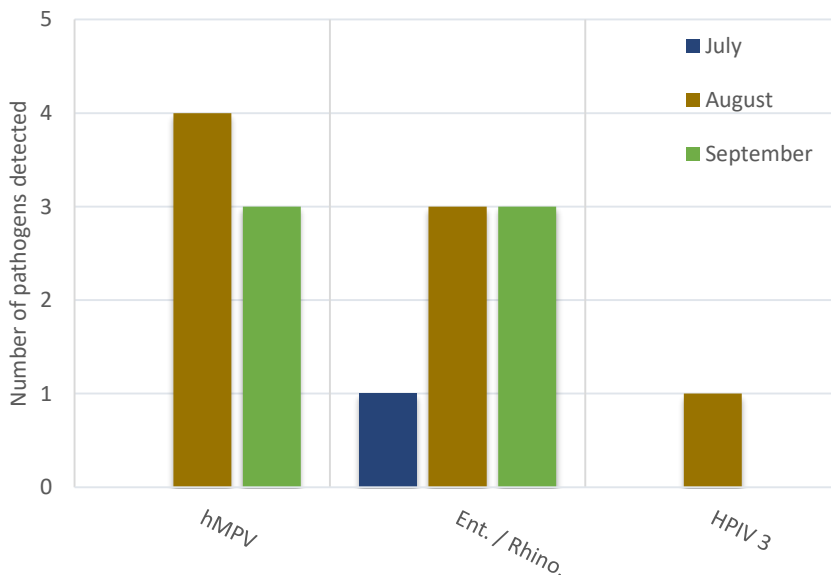
In September, the MHD laboratory and KHC STI staff participated in CDC's Division of STD Prevention site visit. MHD is 1 of 8 sites in the country to receive the Strengthening U.S. Response to Resistant Gonorrhea (SURRG) grant funding to mitigate spread of resistant *Neisseria gonorrhoeae* (GC). Along with WI DHS, Planned Parenthood, BESTD clinic and HCET, MHD provided CDC the opportunity to better understand Milwaukee SURRG project successes, challenges and opportunities.



**Figure 1:** Positive specimens identified using molecular or serological assays for the given organism.

\*Not reportable as per WI DHS 145.04 (3) (a)

## Respiratory Infections



**Figure 2:** Pathogens detected using the Respiratory Pathogen Panel (RPP) and/or RT-PCR Influenza assay.

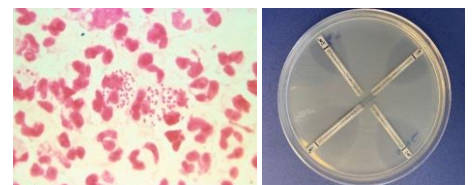


Image of *Neisseria gonorrhoeae* and Etest for antibiotic susceptibility testing.

For more information about SURRG:

<https://www.cdc.gov/std/gonorrhea/arg/carb.htm>

### Key highlights:

- Please complete a [brief survey](#) to share your feedback on our new monthly report design.

### Links to related reports:

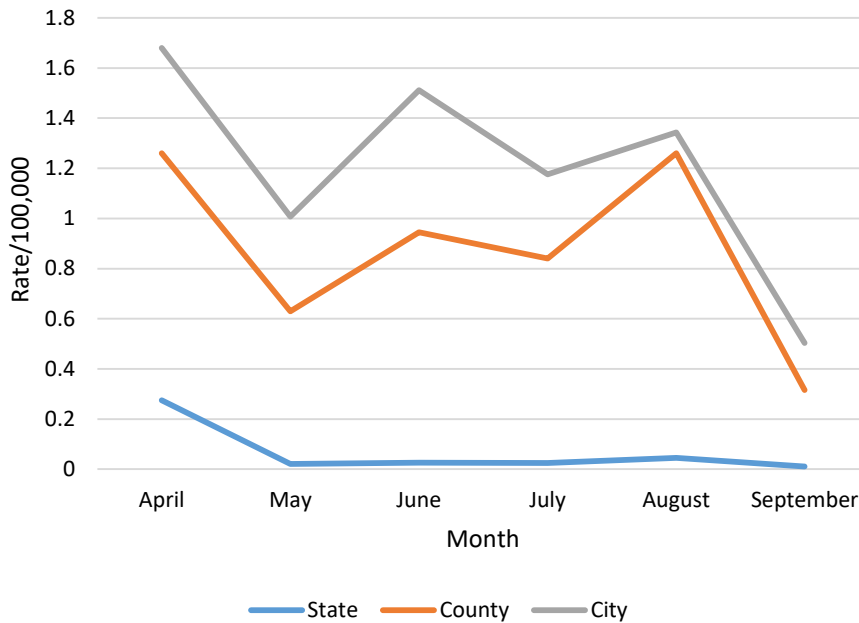
[MHD SurNet](#)

[WI Epi Express](#)

Connect with your health department:



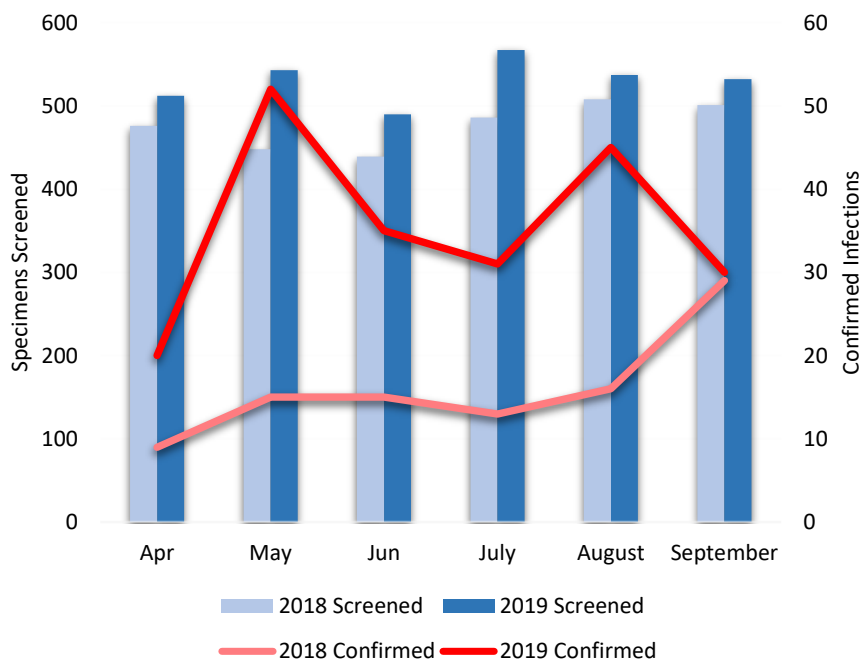
## New HIV Infections



**Figure 3:** Monthly comparison of rate of new HIV infections in the state of Wisconsin, Milwaukee County, and City of Milwaukee, using state- and county-level data obtained from the Wisconsin Department of Health Services.

For more statewide HIV data, visit: <https://www.dhs.wisconsin.gov/hiv/data.htm>.

## Syphilis Surveillance

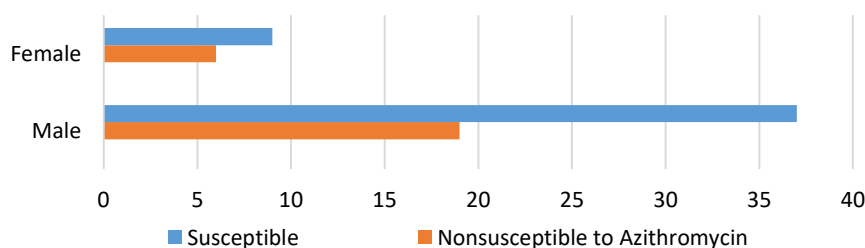


**Figure 4:** Monthly comparison of syphilis data with year over year comparisons.

*Bars:* number of specimens screened at MHDL, left axis.

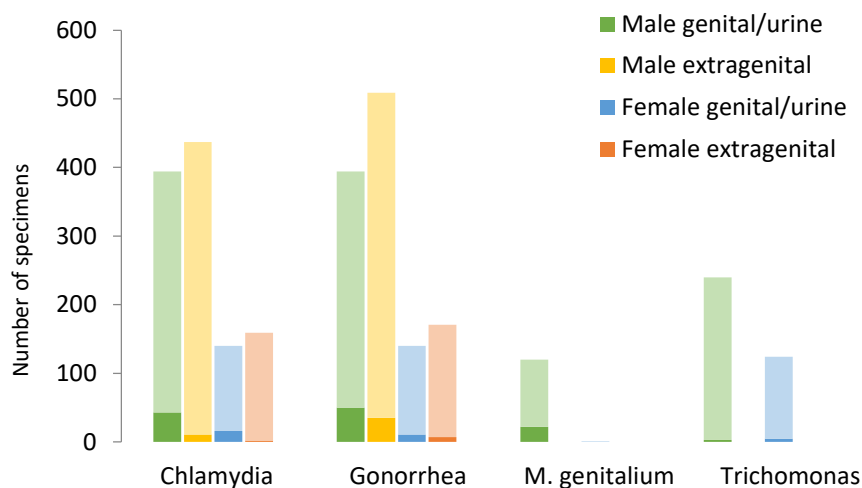
*Lines:* number of confirmed infections, right axis.

## Gonorrhea Antimicrobial Susceptibility Testing



**Figure 5:** Antibiotic susceptibility profile of Gonorrhea isolates identified in males and females. In September 2019, 25 of 71 cultures tested were found to be nonsusceptible to Azithromycin according to CLSI guidelines. MHDL tests for antibiotic resistance to Azithromycin, Ceftriaxone, Cefixime and Gentamicin.

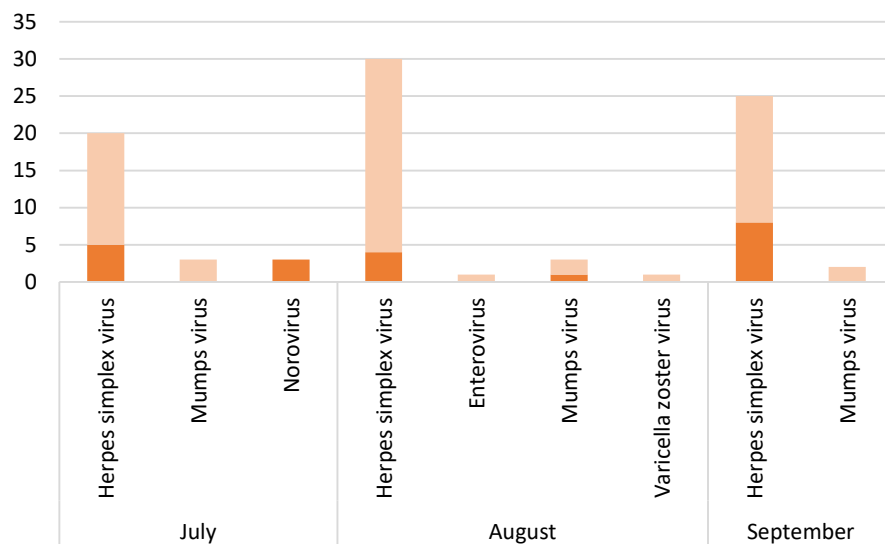
## Sexually Transmitted Infections by Source



**Figure 6:** Distribution of STIs detected using NAAT. In September 2019, 6.4% of specimens were positive for Chlamydia, with slightly higher positivity rates among males than females. 8.4% of specimens were positive for Gonorrhea, with men 60% more likely to be diagnosed than women. 18% of *M. genitalium* specimens were positive, all males. 2.2% of *Trichomonas* specimens were positive, with threefold higher rates in women than men.

*Note: Darker bars indicate positive specimens.*

## Viral surveillance

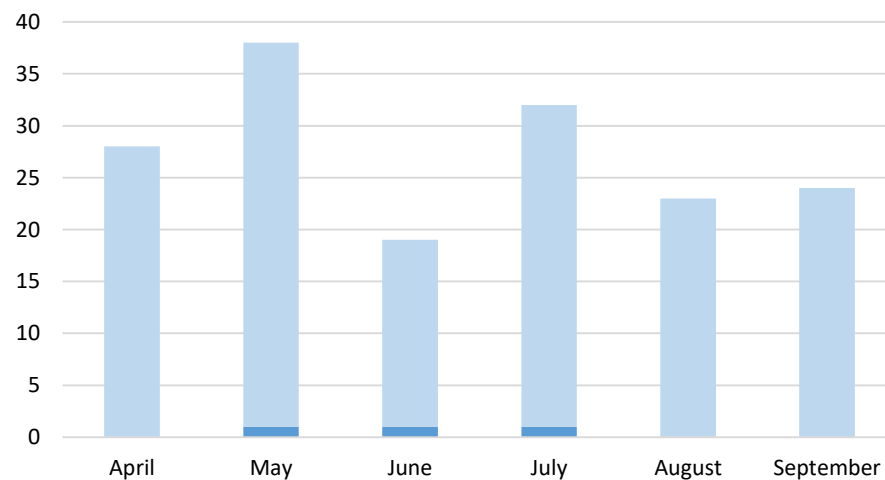


**Figure 7:** Specimens tested using molecular methods.

*Note: Height of bar indicates number of specimens tested.*

*Darker bars indicate DNA/RNA detected by virus culture, real-time PCR and/or nucleotide sequencing analysis.*

## Legionella Testing



**Figure 8:** Specimens tested using culture and molecular methods.

\*MHDL is one of the CDC ELITE certified sites for environmental *Legionella* testing.

*Note: Darker bars indicate confirmed Legionella pneumophila by culture and/or real-time PCR.*